

# PHARMACEUTICAL AEROSOL FORMULATION OF SOLID POLYPEPTIDE MICROPARTICLES AND METHOD FOR THE PREPARATION THEREOF

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## Abstract

Disclosed is a pharmaceutical aerosol formulation of biologically active polypeptide which is a human interferon or a human interleukin, which is characterized by the fact that said polypeptide is in the form of solid micronized particles having a predetermined median diameter. An aqueous solution of the polypeptide is lyophilized followed by milling into an appropriate particle size of 0.5 to 10  $\mu$ m in median diameter to target either an upper or lower respiratory tract. The polypeptide aerosol suspension prepared in a pressurized metered-dose inhaler and administered by oral inhalation was found to produce desired local and systemic effects in animal tests. The biological response obtained with the polypeptide aerosol compares favorably to the response obtained from parenteral administration.

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